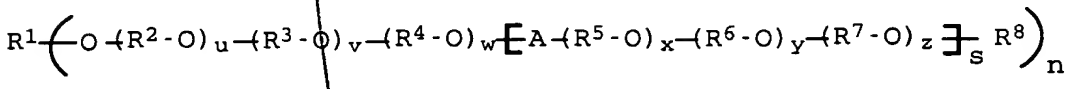
We claim:

1. A process for preparing graft copolymers of polyvinyl esters by polymerization of

a) at least one vinyl ester of aliphatic $C_1$-$C_{24}$-carboxylic acids in the presence of

b) polyethers which are solid at room temperature and have the general formula I



I

in which the variables have the following meaning, independently of one another:

$R^1$ hydrogen, $C_1$-$C_{24}$-alkyl, $R^9$-C(=O)-, $R^9$-NH-C(=O)-, polyalcohol residue;

$R^8$ hydrogen, $C_1$-$C_{24}$-alkyl, $R^9$-C(=O)-, $R^9$-NH-C(=O)-;

$R^2$ to $R^7$

$-(CH_2)_2-$, $-(CH_2)_3-$, $-(CH_2)_4-$, $-CH_2-CH(CH_3)-$, $-CH_2-CH(CH_2-CH_3)-$, $-CH_2-CHOR^{10}-CH_2-$;

$R^9$ $C_1$-$C_{24}$-alkyl;

$R^{10}$ hydrogen, $C_1$-$C_{24}$-alkyl, $R^9$-C(=O)-;

A $-C(=O)-O-$, $-C(=O)-B-C(=O)-O-$, $-C(=O)-NH-B-NH-C(=O)-O-$;

B $-(CH_2)_t-$, arylene, optionally substituted;

n 1 to 8;

s 0 to 500;

t 1 to 12;

u 1 to 5000;

v 0 to 5000;

w 0 to 5000;

x 1 to 5000;

y 0 to 5000;

z 0 to 5000

c) and, where appropriate, at least one other monomer

using a free-radical initiator system, wherein liquid polyalkylene glycol is used as solvent for the free-radical initiator system.

2. A process as claimed in claim 1, wherein the solution of the free-radical initiator system is added continuously throughout the polymerization reaction time.

3. A process as claimed in either of claims 1 and 2, wherein liquid polyethylene glycol is used as solvent for the free-radical initiator at room temperature.

4. The use of the polymers prepared by a process as claimed in any of claims 1 to 3 as coating agents, binders and/or film-forming excipients for pharmaceutical dosage forms.

5. The use of the polymers prepared by a process as claimed in any of claims 1 to 3 as additives to cosmetic, hygienic and/or dermatological preparations.

6. A cosmetic, dermatological, hygienic or pharmaceutial dosage form comprising at least one of the polymers prepared by a process as claimed in claims 1 to 3 in addition to conventional excipients.

7. Graft copolymers of polyvinyl esters obtainable by polymerization of

a) at least one vinyl ester of aliphatic $C_1$-$C_{24}$-carboxylic acids in the presence of

b) polyethers which are solid at room temperature and have the general formula I

$$R^1\left(O\text{-}(R^2\text{-}O)_u\text{-}(R^3\text{-}O)_v\text{-}(R^4\text{-}O)_w\text{-}\left[A\text{-}(R^5\text{-}O)_x\text{-}(R^6\text{-}O)_y\text{-}(R^7\text{-}O)_z\right]_s R^8\right)_n \quad \text{I}$$

in which the variables have the following meaning, independently of one another:

$R^1$ hydrogen, $C_1$-$C_{24}$-alkyl; $R^9$-C(=O)-, $R^9$-NH-C(=O)-, polyalcohol residue;

$R^8$ hydrogen, $C_1$-$C_{24}$-alkyl, $R^9$-C(=O)-, $R^9$-NH-C(=O)-;

$R^2$ to $R^7$

$-(CH_2)_2-$, $-(CH_2)_3-$, $-(CH_2)_4-$, $-CH_2-CH(CH_3)-$, $-CH_2-CH(CH_2-CH_3)-$, $-CH_2-CHOR^{10}-CH_2-$;

$R^9$ $C_1$-$C_{24}$-alkyl;

$R^{10}$ hydrogen, $C_1$-$C_{24}$-alkyl, $R^9$-C(=O)-;

A $-C(=O)-O-$, $-C(=O)-B-C(=O)-O-$, $-C(=O)-NH-B-NH-C(=O)-O-$;

B $-(CH_2)_t-$, arylene, optionally substituted;

n 1 to 8;

s 0 to 500;

t 1 to 12;

u 1 to 5000;

v 0 to 5000;

w 0 to 5000;

x 1 to 5000;

y 0 to 5000;

z 0 to 5000

c) and, where appropriate, at least one other monomer

using a free-radical initiator system, wherein liquid polyalkylene glycol is used as solvent for the free-radical initiator system.

Sub B2 contd

add B3

add B3